WHAT IS CLAIMED IS:

1.   A storage system comprising:

5   a cache configured to store a plurality of data blocks in a first plurality of
               locations, wherein said cache is a non-volatile storage;

               a first metadata storage including a plurality of entries configured to store
               metadata including block addresses of data blocks within said
10   cache, wherein said first metadata storage is a non-volatile storage;
               and

               a second metadata storage including a second plurality of locations
               configured to store metadata including said block addresses
15   identifying said data blocks within said cache and further including
               pointers to said data blocks within said cache, wherein said second
               metadata storage is a volatile storage.

2.   The storage system as recited in claim 1 further comprising a cache control unit
20   coupled to said cache and configured to update said first metadata and said second
metadata.

3.   The storage system as recited in claim 1, wherein each entry of said plurality of
entries corresponds to a respective one of said plurality of locations in said cache.

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4.   The storage system as recited in claim 1, wherein each of said second plurality of
locations is configured to store metadata corresponding to any of said plurality of
locations in said cache storage.

5.   The storage system as recited in claim 1, wherein said metadata includes a value indicative of whether a corresponding data block contains valid data.

5   6.   The storage system as recited in claim 1, wherein said metadata includes a value indicative of whether a corresponding data block has been flushed to an underlying storage volume.

7.   The storage system as recited in claim 1, wherein said metadata includes a value

10   corresponding to a volume identifier of an underlying storage volume.

8.   The storage system as recited in claim 1, wherein said metadata stored within said second metadata storage is arranged into one or more cache descriptors each associated with a respective data block.

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9.   The storage system as recited in claim 8, wherein said one or more cache descriptors are arranged into one or more groups, wherein a given group includes one or more cache descriptors that correspond to contiguous logical block addresses of an underlying storage volume.

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10.   The storage system as recited in claim 1, wherein said storage system further comprising a storage for storing data including said plurality of data blocks cached within said cache.

25   11.   The storage system as recited in claim 10 further comprising a controller unit coupled between said storage and said cache and configured to control storage of said data within said storage.

12.   The storage system as recited in claim 10, wherein said storage includes a storage volume including at least one physical storage device.

13.   The storage system as recited in claim 12, wherein said at least one physical storage device includes one or more hard disk drives.

14.   A method comprising:

storing a plurality of data blocks in a first plurality of locations of a cache, wherein said cache is a non-volatile storage;

storing within a non-volatile first metadata storage including a plurality of entries, metadata including block addresses of data blocks within said cache; and

storing within a volatile second metadata storage including a second plurality of locations, metadata including said block addresses identifying said data blocks within said cache and further including pointers to said data blocks within said cache.

15.   The method as recited in claim 14, wherein each entry of said plurality of entries corresponds to a respective one of said plurality of locations in said cache.

16.   The method as recited in claim 14 further comprising storing within each of said second plurality of locations, metadata corresponding to any of said plurality of locations in said cache storage.

17.   The method as recited in claim 14, wherein said metadata includes a value indicative of whether a corresponding data block contains valid data.

18.   The method as recited in claim 14, wherein said metadata includes a value indicative of whether a corresponding data block has been flushed to an underlying storage volume.

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19.   The method as recited in claim 14, wherein said metadata includes a value corresponding to a volume identifier of an underlying storage volume.

20.   The method as recited in claim 14 further comprising arranging said metadata
10   stored within said second metadata storage into one or more cache descriptors each associated with a respective data block.

21.   The method as recited in claim 20 further comprising arranging said one or more cache descriptors are into one or more groups, wherein a given group includes one or
15   more cache descriptors that correspond to contiguous logical block addresses of an underlying storage volume.